

09591

21 December 2010

Daniel Keary  
Director, Government Land and Social Projects  
Department of Planning  
GPO Box 39  
SYDNEY NSW 2001

Dear Mr Keary

**MP 09\_0206 PREFERRED PROJECT REPORT  
RAS EXHIBITION HALL UPGRADE AT SYDNEY OLYMPIC PARK**

We refer to the above Major Project MP 09\_0206 for the Royal Agricultural Society (RAS) Exhibition Hall Upgrade at Sydney Olympic Park. JBA Urban Planning Consultants have been engaged by the Royal Agricultural Society of NSW (RAS) to prepare the Preferred Project Report for MP 09\_0206.

**1.0 INTRODUCTION**

An Environmental Assessment Report (EAR) for a Project Application (PA) relating to alterations and additions to the RAS Exhibition Hall was publicly exhibited between 28 April 2010 and 28 May 2010.

In response to the public exhibition, the Department of Planning has advised that it received three (3) submissions. Submissions were received from the Sydney Olympic Park Authority (SOPA), the original architects for the Exhibition Hall and the Roads and Traffic Authority. In a letter dated 2 June 2010, the Department of Planning requested that a response be prepared in relation to the issues arising from the submissions.

The proponent, RAS and its specialist consultant team, has reviewed and considered the public submissions and, in accordance with clause 75H(6) of the *Environmental Planning and Assessment Act 1979*, this Preferred Project Report (PPR) presents RAS's response to the issues raised in the public submissions. The review and assessment of the issues raised in the public submissions has resulted in the following revisions to the Project Application:

- The number of external ducts has been reduced such that there is now only 6 ducts on either side of the building as opposed to the original proposal which included 12 ducts on either side of the building;
- The ducts have been grouped and relocated to the valleys of the roof so as to reduce their visibility from the surrounding public domain;
- The awning located over the entrance to the north-eastern entrance of the concourse has been reduced in size;
- The soffit of the awning has been reviewed and will now be finished in timber as opposed to the original proposal where the soffit was to comprise a reflective metallic finish; and

- In accordance with the recommendations of SOPA, the internal design of the concourse has been amended such that it no longer directly references the original building, in particular the diagrid design has been replaced with modulated timber panels.

The key issues identified within each of the submissions received, and RAS's response, are outlined below. Revised Architectural Plans are included at **Appendix A**.

## **2.0 SYDNEY OLYMPIC PARK AUTHORITY (SOPA)**

The building owner, SOPA, made a submission during the public exhibition of the Project Application. JBA notes SOPA's general support for the proposed development, with the following issues requiring further consideration prior to determination:

### **2.1 Overall Plan**

The SOPA submission questioned the widths of the proposed concourse and doorways and their allowance for pedestrian circulation, particularly with large crowds during the Royal Easter Show and the increased capacity of the Hall as a result of the Project Application.

The proposed concourse will be approximately 208m long, 12.1m high and 12.6m wide. The width of 12.6m is sufficient to enable pedestrian access and movement. In addition, the purpose of the new concourse is to provide a sheltered location for people to wait or queue while waiting to enter the Exhibition Hall. The concourse will separate those queuing for the Exhibition Hall from general pedestrian movement in Riverina Avenue, and therefore improve the orderliness of pedestrian activity outside the Exhibition Hall.

The proposed concourse is part of the first stage of the overall redevelopment of the Sydney Showgrounds. A full size plan is included at **Appendix B** which shows the current vision for the redevelopment of the site. It is noted that a new building is proposed immediately north of the site which will occupy all of Riverina Avenue making it an internal space. The concourse will adapt to the overall Cox Richardson design for the showgrounds, including the eventual removal of the side walls such that it forms part of the central circulation space between the existing building and the future building to the north.

Notwithstanding the above, it is noted that the development to the north is still a concept design only and that the detailed design of the site is yet to occur and will therefore be able to accommodate the concourse element proposed.

### **2.2 Building Design**

#### ***Duct Work***

The SOPA submission raised concerns regarding the locations and penetration of duct work through the existing roof, and requested that a mechanical ventilation report be prepared as part of the Preferred Project Report. SOPA requested that the report include a review of the ducting system and include feasibility of alternate options, resulting in fewer ducts over the building eave.

Cox Richardson Architects advises that the following design parameters were set in discussion with the RAS and SOPA to drive an appropriate design solution for the exhibition hall air conditioning options:

- air distribution outlets needed to be at a high level and evenly spaced to allow the continued flexibility of the exhibition space and improved air distribution both in the heating and cooling modes;
- the ducts entering into the halls from the existing plant on the north and south should limit any intrusion into the exhibition hall space below the roof truss soffit;

- the ducts on the north are restricted to enter the halls above the operable track line that runs along the entire north facade and are supported off the roof structure; and
- the ducting within the halls should be designed to limit the visual impact in the space and hanging displays as required by exhibitors.

The conclusion of these parameters have driven the current design solution which has the least external and internal impact on the building while meeting all the stringent technical requirements for air-conditioning to a large flexible volume.

To indicate the minimal visual impact of these ducts on the existing design a number of external views were taken from the ends of the surrounding streets to ensure a minimum impact is made on the appearance of the existing building:

- it was concluded that in the short term this impact would be insignificant given that along the southern boundary along Murray Rose avenue new developments are screening the southern facade of the building from public view;
- from the eastern edge along Australia Avenue the roof canopy helps to conceal the duct on the northern facade while along the northern edge; and
- from Grande Parade the glimpses of the odd duct are insignificant in the appreciation of the development and will all be totally obscured once the remaining development expansion is undertaken.

Cox Richardson believes this justification provides adequate evidence that the design has been sensitively handled in its execution while meeting the strict demands of RAS and SOPA of the facility to ensure that it can perform to meet the demands of exhibition industry for climate controlled space during all events.

In addition, Aurecon was engaged to prepare a Review of Exhibition Air-Conditioning Options report for the proposed improvements to the existing air conditioning system (refer to **Appendix C**). Aurecon's report assessed three options proposed to improve the existing air conditioning system, which included:

- Low level displacement air conditioning;
- Side-blow air conditioning; and
- Overhead air conditioning.

The current air conditioning system servicing the Exhibition Hall requires upgrades to meet the needs of exhibitors by better distributing air, particularly warm air during winter. Of the three options available to improve the existing air conditioning system, Aurecon found the overhead air conditioning system to demonstrate the most effective method of distributing warm air throughout the Exhibition Hall. The proposed ducts will be connected to the existing air handling units (AHUs) on the south side of the hall and the existing relocated AHUs on the north side.

Due to the existing operable doors, the new duct work is prevented from entering from the side of the building, and must run external to the building before entering above the door rails. Furthermore, future works as part of the overall redevelopment of the Showgrounds will hide the new duct work.

While achieving an effective air conditioning system, the proposed duct work also represents the best design outcome for the Exhibition Hall.

### ***Design articulation and character***

The SOPA submission refers to the obligation under the Commonwealth *Copyright Amendment (Moral Rights) Act 2000* ('Moral Rights Act') for consultation with the original architects, Anchor Mortlock Woolley. Specific issues identified by SOPA for design consultation are identified below (in italics), along with the responses from Cox Richardson (as architects for the alterations and additions to the RAS Exhibition Hall):

1. *The proposed awnings and entry canopy, which appear highly polished and contemporary, and out of character with the more rustic 'shed' language of the existing buildings. Consideration may be given to alternative material and profiles for the new awnings and entry canopy.*

The materials proposed have been amended such that the soffit of the awning will now be finished in timber.

2. *The width of the proposed awning along the north-west facade is modulated in Plan, and appears very narrow at points. Continuous sheltered pedestrian access along the facade should be considered.*

The awning provides sun control to the facade and at its narrowest provides horizontal cover for the 2725mm wide level accessible walkway which runs along the entire building facade.

It is noted that the existing awning is modulated and that the wider sections of the awning are located at points where people will access the building and therefore affords appropriate weather protection. The new concourse will provide shelter for people walking between the halls.

3. *Consideration should also be given to clearly identifying the Exhibition Hall entry for pedestrians entering from the south, along Showground Road. This could be achieved through appropriate treatment of the entry plaza, for example extending paving treatment to the road edge, or across Showground Road.*

The design of the hardscape of the external works to the project includes the redesign and resurfacing of the entire length of Riverina Avenue up to the kerb to Showground Road as shown on the public domain plan.

4. *The 'diagrid' diagonal structure is unique to the geometry of the Dome and should not be mimicked in the rectilinear geometry of the new concourse. Consideration should be given to alternative framing systems which reflect the rectilinear geometry of the proposed concourse.*

The 'diagrid' structure has now been deleted from the proposed design and has been replaced by modulated timber panels which form the ceiling and cladding of the concourse. The panels ensure that the concourse has a character of its own and will be read as an addition to the new building rather than an original component. The panels will also serve a functional purpose and will provide acoustic insulation.

### ***Environmental Sustainable Design***

SOPA's submission raised the issue of the building's ability to comply with the Sydney Olympic Park Master Plan 2030 (section 4.2) standards for sustainability involving natural ventilation.

The Project Application includes the upgrade of the existing air-conditioning system within the Exhibition Hall, including the installation of new ducting in the roof space, which was originally approved by SOPA. The air-conditioning system was approved on the basis that the natural ventilation of the building was not providing a satisfactory internal environment.

The upgrade to the existing air-conditioning system is considered acceptable and an environmental benefit given the Project Application seeks to make the existing system more effective. It does not propose a new system as implied in the submission.

In addition, the ability to achieve natural ventilation by opening all doors of the Exhibition Hall will be maintained. RAS note that the air-condition system will only be in operation during events and not during bump in and bump out of event materials.

### **2.3 Standard Conditions**

SOPA identified a number of standard conditions to be applied to the proposed development. The proposed conditions are considered acceptable.

## **3.0 ANCHOR MORTLOCK WOOLLEY PTY LTD (AMW) SUBMISSION**

AMW, the original architects of the RAS Exhibition Hall, made a submission during the public exhibition of the Project Application. The key issues raised by AMW were in relation to consultation undertaken with AMW (as the original architects of the RAS Exhibition Hall) and the procedures required under the Moral Rights Act in regards to amendments to the original design of the building.

### **3.1 How Moral Rights Requirements have been met**

The Proponent has now met with AMW (Ken Woolley and Dale Swan) so as to ascertain their concerns and issues. Also in attendance at that meeting were the following people:

- Bernadette Serone – Royal Agricultural Society
- Michael Leech – Thinc Projects
- George Reid – Aurecon
- Russell Lee and Nick Tyrell – Cox Richardson Architects and Planners
- Darlene van der Breggan - SOPA

AMW was then commissioned to review the proposed design and provide comment / suggestions on design alternatives. AMW made comments in relation to:

- The roof design and the proposed duct penetrations; and
- The interior and exterior finishes of the proposed concourse.

In line with the comments and suggestions made by AMW, the design of the roof ducts has been amended such they are reduced in number and will be less visible from the surrounding public domain.

With regard to the changes to the concourse, the materials have been revised such that they now reflect the 'rustic shed' language of the building as was desired by the original architect. The internal design has also been revised so as to better differentiate the new addition from the original structure.

It is noted that AMW did provide an alternative sketch option for the design of the concourse, however this was not acceptable to the proponent or SOPA for the following reasons:

- a) The alternative design could not accommodate the future expansion of the concourse as is likely to occur in the future; and
- b) The cost of the alternative design was likely to be in excess than that available to the RAS.

A letter received from SOPA is included at **Appendix D** which confirms those design items that SOPA viewed as being significant and requiring additional consideration and response.

As a result of this meeting and clarification of the issues raised by AMW and further discussions with SOPA, the Proponent believes the requirements of the Moral Rights Act have been met.

#### **4.0 ROADS AND TRAFFIC AUTHORITY (RTA)**

JBA notes a submission was received from the RTA and no objection was raised to the proposed development.

#### **5.0 CONCLUSION**

This PPR has been submitted in response to the issues raised in the public submissions. The responses to the key issues are summarised below:

- The proposed design has been amended so as to respond to the issues raised by the original architect, in particular the number of ducts and penetrations in the roof have been reduced and the entry points have been relocated such that they are now less visible;
- External and internal finishes have been amended to be more in keeping with the existing building and comments received;
- The proposed upgrade to the existing air conditioning system is the most environmentally efficient and effective outcome for the Hall and the proposed duct work represents the best design outcome;
- The ability to achieve natural ventilation by opening all doors to the Exhibition Hall will be maintained;
- All requirements for consultation within the original architect under the Moral Rights Act have been satisfied; and
- The standard conditions proposed by SOPA are considered acceptable.

Should you have any queries about this matter, please do not hesitate to contact me on 02 9956 6962 or [jbuchanan@jbaplanning.com.au](mailto:jbuchanan@jbaplanning.com.au).

Yours faithfully



Jennie Buchanan  
*Principal Planner*